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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,985	11/16/2004	Fareed Kureshy	100788.0010US	2960

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EXAMINER	
OWENS, GARRISON A	

ART UNIT	PAPER NUMBER
1609	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/509,985	KURESHY ET AL.	
	Examiner	Art Unit	
	Garrison Owens	1609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 November 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *14-20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 September 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *30 September 2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

1. Application 10509985, (20050118640 A1): Claims 1-20 are pending. Claims 14-20 were withdrawn from consideration. Claims 1-13 are examined.

Restriction/Election

2. Applicants' election of Group I, claims 1-13, without traverse in the reply filed on 13 March 2007, is acknowledged. Restriction is deemed proper and is made final.

3. Claims 14-20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Priority

4. This application, 10/509,985, claims the benefit of U.S. provisional patent application with the serial number 60/383,896, filed May 28, 2002, and national stage under 35 U.S.C. 371 of PCT/US03/17073 patent application, filed May 28, 2003.

Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

Non-initialed and/or non-dated alterations have been made to the oath or declaration. See 37 CFR 1.52(c).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claims 1-13** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In **Claim 1**, and its dependent claims, are indefinite because claim 1 fails to clearly establish the metes and bounds of the invention. It is unclear to the Examiner the nature of the "coupling" in this claim. For example, it is unclear to the Examiner if the term relates to a "structural coupling" or to an "operational coupling", or if it is a "direct" or "indirect" coupling.

Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such

omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the relationship of the second energy source to the second energy detector.

Claims Rejections - 35 U.S.C. 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 1-13** are rejected under 35 USC 102(b) as being anticipated by Noblett, et al., US Patent 6,471,916 (29 October 2002)

For **claim 1**, Noblett et al., (see abstract) teach an analytic system for optical detection of a plurality of analytes (see Figure 2, element 113, and 117) that are bound to a biochip (element 100 containing elements 111 and 115), the analytic system comprising: a platform (element 55, see column 5, lines 7-8) coupled to a confocal microscope detector (see column 8, lines 22-23) and movable along an x-coordinate, a y-coordinate, relative to the detector (see column 5, lines 9-10; lines 31-33)), wherein the platform is configured to receive a biochip (element 100 containing elements 111 and 115) ; wherein the biochip has a registration marker (element 106, and/or element

119) and further has a plurality of analytes (elements 113 and 117) in predetermined positions relative to the registration marker; a first light source that illuminates the registration marker to generate a registration marker signal.). Noblett et al., teach (see column 5, lines 20; 44-53) a fiducial mark which describes a registration marker. The registration marks [e.g. Figure 2, elements 105, 106, 107, 108 and 119 (a-g)] are used to orient the location or position the spots relative to each other on the microarray. They are also used to calibrate and adjust the sensitivity of the microarray scanning system and further comprising a second light source (see column 3, lines 61-63, describing "two or more single-wavelength coherent optical radiation sources") that illuminates at least one of the plurality of analytes to generate an analyte signal (e.g., col. 4, lines 11-24); and wherein a focal position for detection of the analyte signal by the detector is determined by the analytic system using the registration marker signal (see column 5, lines, 15-24, 44-53).

For **claim 2**, Noblett et al, (see teach the analytic system of claim 1 wherein the detector comprises an objective lens (see Figure 1, element 31) or an objective lens system (see Figure 1, element 30) with a numeric aperture (see Figure 1, element 34) that is sufficient to allow detection of the analyte signal without moving the platform along the z-coordinate.

For **claim 3**, Noblett et al., (see column 4, lines 11-16) teach the analytic system of claim 1 wherein the first light source has a wavelength maximum that is different from an absorption maximum of an optically detectable label of the at

least one of the plurality of analytes.

For **claim 4**, the analytic system of claim 1 further comprising a third light source (column 4, line 2) that illuminates the at least one of the plurality of analytes or another one of the plurality of analytes to generate a second analyte signal, and wherein the third light source has a wavelength maximum that is different from both, the wavelength maximum of the first light source and the absorption maximum of an optically detectable label of the at least one of the plurality of analytes or another one of the plurality of analytes.

For **claim 5**, Noblett et al., (see Column 4, lines 16-24) teach the analytic system of claim 1 wherein the registration marker and the at least one of the analytes are illuminated at a different angle by the first and the second light source, respectively.

For **claim 6**, Noblett et al, (see column 3, lines 61-65) teach an analytic system of claim 1 wherein the first light source is a light emitting diode, and wherein the second light source is a laser.

For **claim 7**, Noblett et al, (see abstract and column 5, lines 37-39) the analytic system of claim 1 wherein the registration marker (element 119) comprises a fluorescent dye.

For **claim 8**, Noblett et al., (see column 3, line 12; column 5, line 1) the analytic system of claim 1 wherein the analyte signal is a fluorescence signal.

For **claim 9**, Noblett et al., (see column 4, line 26) the analytic system of claim 1 wherein the detector comprises a photo-multiplier tube.

For **claim 10**, Noblett et al., (see column 5, lines 15-23) the analytic system of claim 1 further comprising a second and a third registration marker, and wherein the focal position for detection of the analyte signal by the detector is determined by the analytic system using registration marker signals from the registration marker, the second registration marker and the third registration marker.

For **claim11**, Noblett et al, (see column 7, lines 10-23) teach the analytic system of claim 1 wherein the analyte signal is normalized by the analytic system using a positive control marker on the biochip.

For, **claim 12**, Noblett et al., (see column 5, lines 54-60) teach the analytic system of claim 1 further comprising a data transfer interface electronically coupled to the detector.

For **claim 13**, the analytic system of claim 12 wherein the data transfer interface provides data to a computer in a remote location. The transfer of data to a computer in a remote location is a recitation of an intended use of the claimed invention. This intended use of claimed apparatus, as recited in claim 13, does not result in a structural difference between the claimed apparatus and the prior art of Noblett et al., and does not patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Conclusion

Claims 1-13 are rejected.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Garrison Owens whose telephone number is 571-270-3060. The examiner can normally be reached on Monday - Thursday, 7:30AM - 5PM, ALT. Friday, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mary Mosher can be reached on 571-272-0906. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

GAO

MARK L. SHIBUYA
PRIMARY EXAMINER